

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF FEBRUARY 7, 1961

Dr. Schmitt called the meeting to order at 8:00 P.M. in Room 129 of the A. M. N. H. There were 17 members and seven guests present. The minutes of the previous meeting were read and accepted after orrection. Mrs. Gaston Dubois was elected to membership. The following were proposed for membership: Mr. Glenn Foss, Mr. Leonard Goldentyer, Mr. and Mrs. Victor Roudin, and Dr. Harry L. Haynes. It was proposed to suspend the By-Laws on election. After the proper motions were made, all were unanimously elected to the Society.

Dr. Schmitt then presented Dr. Maynard Ramsey of the Plant Quarantine Division of the United States Department of Agriculture who spoke on, "How We Buttress Our Plant Pest Defense In A Changing World." The evolution of plant pest defenses and the problems brought about by modern transportation methods were described. During 1960 over 30,000 lots of plant pests were taken by inspectors. This means that one important plant pest was prevented from entering our country every 17 minutes on the average during the entire year. Not only are plant and animal products inspected, but motor vehicles and machine parts, too. Fumigation methods were described. The inspection division has a force of only 500 professionals, scattered over the entire country, to do this tremendous job. This work is aided by Customs, Immigration, Public Health Service, and Post Office Department personnel. A very interesting color and sound film, "The Hidden Menace," was shown. This depicted the interception and destruction of many plant pests. It urged all citizens, particularly, farmers, naturalists, and those interested in science to be part-time plant pest detectives and to help in this huge task of protecting our crops and health. A lively question and answer period followed. The meeting adjourned at 9:30 P.M.

RAYMOND BRUSH, SECRETARY

MEETING OF FEBRUARY 21, 1961

President Schmitt called the meeting to order at 8:10 P.M. in Room 129 of the A. M. N. H.; 16 members and 13 guests were present and were welcomed. In the absence of the Secretary, Mr. Peter Dix read the minutes of the previous meeting, which were accepted as read. Dr. Klots proposed Miss Barbara Johnson of 418 Hicks Street, Brooklyn, a Biology Major of C.C.N.Y., for student membership.

Dr. Daniel Ludwig introduced the speaker of the evening, Mr. D. Robert Brebbia, who is one of his students at Fordham University and is now at the Rockland State Hospital Research Laboratory. He spoke on "Electrocardiographs of the Housefly." Mr. Brebbia reported that there is little knowledge of insect electrocardiographic behavior. The most complete study of this sort has been done on the grasshopper, *Melanoplus differen-*

tialis, and the cicada hearts. This work on the measurement of the action potential of the housefly heart should provide specific information concerning the action of ions on the cardiac muscle. This would aid in developing a satisfactory insect saline solution. Extracellular electrocardiographs were measured from *in situ* preparations of adult hearts by means of a glass, microcapillary electrode connected to a cathode ray oscilloscope through a pre-amplifier. The effects of various concentrations of sodium, potassium, and calcium ions on the electrocardiographs were determined by perfusion of a saline in which one ion concentration was varied, while the other two were maintained constant. Electrocardiographic tracings were photographed from the cathode ray screen. An analysis of the ECG in a normal perfusate indicates a rapid, diphasic action potential. However, this wave may be fractionated into a complex of three or more components by addition of cold saline. Gradations in spike height and duration occur during perfusion with varying concentrations of the individual ions, each ion producing a characteristic change in the electrical potential. Numerous electrocardiographs were shown, some magnified in time or fractionated to show small, superimposed potentials. The various ionic effects, differences in electrode placement, and other conditions were demonstrated and discussed. Many questions were asked during the discussion period.

The meeting adjourned at 9:45 P.M.

PETER H. DIX, ASST. SEC.

MEETING OF MARCH 7, 1961

The meeting was called to order by President Schmitt at 8:00 P.M. in Room 129 of the A. M. N. H. There were 32 members and four guests present. Mr. Dix read the minutes of the previous meeting which were accepted as read. Miss Barbara Johnson was elected to membership and Mr. Eugene T. McLaughlin and Mr. Louis M. Vasvary were proposed for membership. Miss Gray displayed a silver bracelet in the form of a spider and web and a piece of silk embroidered with silved sequins in the outline of a spider and web.

Dr. James Forbes then introduced the speaker of the evening, his colleague at Fordham University and our fellow-member, Dr. Louis S. Marks, who spoke on, "Polymorphism in the Genus *Papilio*." In his opening remarks he defined his terms and said he was going to share some of the perplexities of the subject with us. He started with Bates' study of polymorphism published in 1861 and led us to the present. He commented on the progress and the lack of it, the changes made in the subject, and the lack of experimental work on polymorphism in the past. Some of the aspects covered were sexual dimorphism, seasonal forms, mimicry, Mendelian relationships including some of the genetics, and various breeding experiments. This informative, technical talk was spiced with humor and barbed criticism, all of which was enthusiastically received. A lively discussion period followed.

The meeting adjourned at 9:45 P.M.

RAYMOND BRUSH, SECRETARY

MEETING OF MARCH 21, 1961

President Schmitt called the meeting to order at 8:05 P.M. in Room 129 of the A. M. N. H. Sixteen members and six guests were present and welcomed to the meeting. The minutes of the previous meeting were accepted as read. Mr. Eugene T. McLaughlin of Montclair State College and Mr. Louis M. Vasvary of the Entomology Department, Rutgers University, were elected to membership. It was announced that our Past-president, Mr. Shoumatoff, had received a new assignment and was moving to London, England. Dr. Schmitt suggested, since Mr. Shoumatoff was not present at this meeting, that a letter be sent to him praising him for his contributions to the Society and extending our very best wishes to him and his family. This was approved.

Dr. Schmitt then introduced Dr. Bailey B. Pepper, Chairman of the Department of Entomology at Rutgers, the State University at New Brunswick, New Jersey, who spoke on "Entomological Research In New Jersey." (An abstract follows). Many questions were asked of Dr. Pepper at the end of his talk. He distributed a pamphlet, "Entomology In New Jersey." Mrs. Patricia Vaurie had available for distribution several issues of the "Canadian Entomologist" which had accumulated in her office. The meeting adjourned at 9:45 P.M.

PETER H. DIX, ASST. SEC.

Entomological Research in New Jersey

The responsibilities of the Department of Entomology of Rutgers, The State University, are three-fold; research, teaching, and extension. It is almost impossible to separate these three activities. Extension usually considered as an extension of applied research and teaching, especially at the graduate level, involves research. The discussion, however, will be confined to the research aspects of the department.

Our permanent staff is composed of 22 members. Our graduate student enrollment for the current semester is 26. Every member of the staff is responsible to one or more research projects, and every staff member does some research, but every staff member does not necessarily have teaching responsibilities.

At the present time we have 38 projects. These projects range from applied to fundamental or basic research. Financial support for our projects includes state funds, through the New Jersey Agricultural Experiment Station; U.S. Department of Agriculture, administered through the Office of State Experiment Stations; other Federal agencies, such as the U. S. Public Health Service; endowments and industrial grants. Certain funds are allocated for specific purposes while the use of others is unrestricted. Our basic aims are to balance the type of research insofar as funds and source of funds permit. Our policy is to maintain, as far possible, a balance between taxonomic, morphological, biological, and physical and chemical research in our insect control programs as well as our teaching activities.

BAILEY B. PEPPER